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ABSTRACT

This document, prepared for the people who work with visitors in national, state, regional, and local parks as part of the Park Project on Energy Interpretation, lists by state approximately 200 United States citizen groups, companies, and non-government agencies involved in some type of energy work. The organizations included were selected on the basis of having programs and facilities, which may be of educational value to citizens. Only groups which agreed to answer inquiries were included. The organizations included embrace a variety of philosophical and political solutions to energy problems. For example, included are pro-nuclear as well as anti-nuclear groups, and high-technology oriented corporations as well as those working on low-technology, self-sufficient approaches. (Author/BT)

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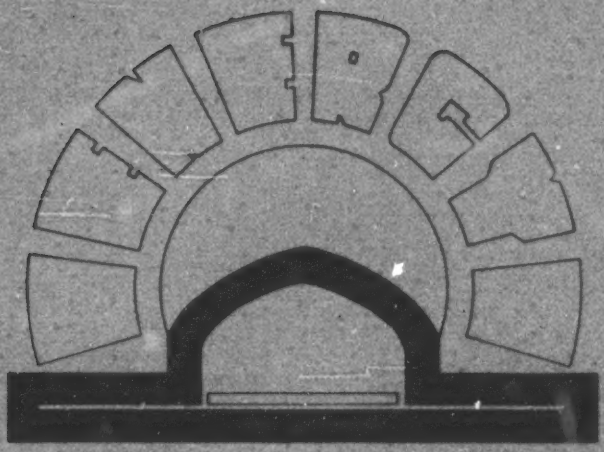

The Park Project on Energy Interpretation was formed because we believe parks are an ideal place to learn about energy. In this setting, people can see a clear contrast between the efficient use nature makes of renewable energy forms, and the way humanity has become dependent on -- and has often carelessly used -- non-renewable forms of energy. The Project is administered by the National Recreation and Park Association, a non-profit membership organization devoted to improving and expanding the nation's park, recreation and leisure services and resources, and is supported by a grant from the Federal Energy Administration.

This list is one of several publications prepared for the people who work with visitors in national, state, regional, and local parks. Descriptions of the other publications and an order form appear on pages 44 and 45. Park Project on Energy Interpretation, National Recreation and Park Association, 1601 N. Kent St., Arlington, Va. 22209, or call (703) 525-0606.

This booklet was written by Anne Townsend, Jackie Krammer, Rebecca Milliken, Rose Dubitsky, and Nancy Shirk, edited by Lee Stephenson and typed and proofread by Anita Finkelstein. The cover and inside cover graphics are by Attic & Cellar Studios, Inc.

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Introduction

This is a list of approximately 200 U.S. citizen groups, companies, and non-profit agencies involved in some type of energy work. It was compiled as a service to interpreters and naturalists in parks around the nation participating in an experimental effort to encourage the use of energy conservation themes in park programs. The organizations included were selected because they have programs or facilities which may be of educational value to citizens. Only groups which agreed to answer inquiries were included so do call, write, or visit those which catch your eye. You'll find the organizations listed here to be willing -- and in most cases eager -- to answer your questions and show you their facilities.

The organizations embrace a variety of political and philosophical "solutions" to our energy problems. For example, we include pro-nuclear as well as anti-nuclear groups, and high-technology-oriented corporations as well as those working on low-technology, self-sufficient approaches. We believe it is important to know what kind of energy work is being done near our homes, and believe all of us can learn things even from those with whom we don't agree.

Even though this list is large, there are undoubtedly important organizations which have been left out. We apologize in advance for these oversights. Some states have no groups listed even though some certainly exist. Additions and corrections are invited and will be incorporated in later editions of the list.

We gratefully acknowledge help from several organizations in compiling this list: The Center for Science in the Public Interest in Washington, D.C.; RAIN in Portland, Oregon; Alternative Sources of Energy in Milaca, Minn.; and INFORM in New York City.

Alabama

A very extensive energy program is underway at the University of Alabama's Huntsville campus. The university's CENTER FOR ENVIRONMENTAL AND ENERGY STUDIES has constructed a solar and wind equipment test facility for the State of Alabama, has contracts with NASA and ERDA to identify promising sites across the country for solar and wind development, and is building structures to test various energy conservation methods. Perhpas most exciting, the Center is also

looking for ways to combine all of these technologies to make possible renewable energy self sufficiency. An information clearinghouse is also being established. Visitors are welcome.

University of Alabama at Huntsviile
P.O. Box 1247
Huntsville, Ala. 35807
(205) 895-6358 or 6257

Alaska

The FAIRBANKS ENVIRONMENTAL CENTER is committed to conservation and environmental protection for Alaska. It also favors economic growth for the state, to the extent that it is consistent with the former goals. Members of the group believe that Washington is directing a rush on Alaskan resources without sufficient regard for environment and the welfare of the state's people. The Center is currently active in the following projects: the oil and gas pipelines, oil production in Naval Petroleum Reserve Number Four, offshore oil production, and the Devil Canyon water development project by the federal Corps of Engineers on the Susitna River.

1895 Pioneer Way
Fairbanks, Alaska 99701
(907) 479-3684

An independent research organization operated by the University of Alaska has become very active in the energy affairs of the state. Based in Fairbanks, the INSTITUTE OF SOCIAL, ECONOMIC, AND GOVERNMENT RESEARCH recently completed a large study on electric power needs and production alternatives for the state. The organization is also studying the economic and social impact of the Alaskan oil pipeline on the city of Fairbanks and nearby areas. A study supported by the National Science Foundation is attempting to project Alaska's growth to 1990 under several possible future scenarios. Energy-efficient transportation systems are also under scrutiny by the Institute.

University of Alaska
Fairbanks, Alaska 99701
(907) 479-7420

A one-and-one-half year old citizen group has formed in Alaska to work for control of Alaska's future by the people who live there. Thus far the ORGANIZATION FOR MANAGEMENT OF ALASKAN RESOURCES (OMAR) has worked only on influencing the selection of a natural gas pipeline route across the state. The group favors construction of the pipeline. OMAR members hope to expand to other state issues soon.

Box 516
Anchorage, Alaska 99510
(907) 278-9615

Arizona

The State of Arizona has a SOLAR ENERGY RESEARCH COMMISSION whose mission is to promote and develop solar energy in conjunction with state parks. The Commission also has available an Arizona Solar Directory, bibliographies, and other solar-related information.

700 West Washington
Suite 502
Phoenix, Ariz. 85007
(602) 271-3682

As part of Arizona State University's project, SOLAR UTILIZATION NOW, a short course is being taught on the direct conversion of solar energy into electricity using devices such as solar cells, MHDs, and fuel cells. Publications are also available.

c/o Jeffrey Cook
College of Architecture
Arizona State University
Tempe, Ariz. 85281
(602) 965-7298

Arkansas

Arkansas has a new organization to promote energy conservation by citizens and the state government. The ARKANSAS ENERGY CONSERVATION COALITION is disseminating information and organizing seminars and workshops, and hopes to expand into a wider range of activities.

1919 West 7th Street
Little Rock, Ark. 72202
(no telephone)

ENVIRO-PLEX is a group of engineers, chemists and physicists, specializing in energy conservation methods for residential and commercial structures. They conduct energy audits, design waste heat recovery systems, etc.

2000 East 17th Street
Little Rock, Ark. 72202
(501) 376-0561

California

Rockwell International's ATOMICS INTERNATIONAL DIVISION is a major developer of the "liquid-metal fast breeder reactor" (LMFBR) program. The federal government is paying 80 percent of the costs. The division intends eventually to be a major supplier of equipment for the LMFBR. The LMFBR would theoretically generate electricity while producing large quantities of plutonium which could be used to fuel other breeders or conventional nuclear plants.

8900 DeSoto
Canoga Park, Cal. 91304
(213) 341-1000

Although their Proposition 15 was defeated in the state's 1976 primary election, CALIFORNIANS FOR NUCLEAR SAFEGUARDS has set the following goals for itself: to watch three bills currently before the state legislature; to continue its educational program, while cooperating with other states on nuclear concerns; and to increase pressure for having an environmentalist on the state energy commission.

2164 Market Street
San Francisco, Cal. 94114
(415) 626-6251

CITIZENS FOR ENERGY CONSERVATION AND SOLAR DEVELOPMENT, INC. publishes brochures on various energy subjects, for reprint cost plus postage. CECSDI is currently working with developing a do-it-yourself solar-heated greenhouse, and is researching natural gas shortages. Also available is the Hot Box Booklet which describes how to cook food using solar energy.

P.O. Box 49173
Los Angeles, Cal. 90049
(213) 472-7187

The COMMUNITY ENVIRONMENTAL COUNCIL of Santa Barbara has developed an extensive urban garden program in conjunction with the city recreation department. The Council's Mesa Project site is used as a training facility in low-energy agricultural techniques for teachers bound for less-developed countries. Members have worked with local homeowners installing solar devices, and the group operates one of California's largest resource recovery centers. The Council offers courses and makes its library available to the public for a small fee.

109 East de la Guerra
Santa Barbara, Cal. 93101
(805) 962-2210

Four EARTHMIND people living on a 40-acre California farm have written two books on home-scale do-it-yourself wind energy; Wind and Windspinners. The farm has an organic garden, holds music gatherings, and operates on the principle that it is possible to develop ecologically sane ways of living and working together.

5246 Boyer Road
Mariposa, Cal. 95338
(they prefer that you write)

Classes in alternative cultivation methods, including bee-keeping and composting, are available from ECOLOGY ACTION OF THE MID-PENINSULA, a group in the Palo Alto area. Members receive a newsletter and can use the library. This group has been locally oriented but is expanding.

2225 El Camino
Palo Alto, Cal. 94306
(415) 328-6752

Jointly funded by the Environmental Protection Agency, the Energy Research and Development Administration and the Federal Energy Administration, the ENERGY INFORMATION CENTER has opened in EPA's downtown San Francisco office. The Center provides publications in such fields as solar and geothermal energy, has over 5000 energy-related documents on microfilm and is open to the public.

100 California Street
San Francisco, Cal. 94111
(415) 556-7328

The Department of Geography and Environmental Studies at San Jose State University is conducting a program entitled the ENVIRONMENTAL INFORMATION CENTER. Part of the program is solar information dissemination and experimentation. EIC also conducts a referral service.

San Jose State University
San Jose, Cal. 95192
(408) 277-2852 (Environmental Information Center)
(408) 277-2939 (Center for Solar Energy Applications)

For actual examples of the possibilities of living in a low-energy society few trips are as worthwhile as visits to the two sites operated by the FARALLONES INSTITUTE. The rural site is based on experimentation and instruction in organic gardening and alternative energy systems. Experimental wind and solar devices are in operation, as is a total recycling system for water and animal waste. The Integral Urban House is an effort to show how urban dwellers can lighten the load on city services. Its organic garden has extensive recycling and composting processes. The house has been adapted to increase benefits from southern exposure, add more insulation, use solar power for hot water heating, etc. Classes are given at both sites, and visits are welcomed at both on Saturdays between one and five p.m.

Rural site:
15290 Coleman Valley Road
Occidental, Cal. 95465
(707) 874-3060

Integral Urban House:
1516 5th Street
Berkeley, Cal. 94710
(415) 525-3795

FRIENDS OF THE EARTH is an international environmental protection organization which also does research and lobbying on energy issues. The group's bi-weekly magazine, Not Man Apart, gives detailed coverage of energy topics, including a special two-page report in every issue on nuclear power.

124 Spear Street
San Francisco, Cal. 94105
(415) 495-4770

With private industry and ERDA funding, the GENERAL ATOMIC COMPANY is conducting a variety of energy development programs, including advanced nuclear energy concepts for electric power production, nuclear energy for industrial process heat, controlled nuclear fusion

for power production, and large-scale solar energy concentrators for power production.

Public Relations and Advertising
P.O. Box 81608
San Diego, Cal. 92138
(714) 455-3000

Rational development of geothermal power is the goal of the GEOTHERMAL RESOURCES COUNCIL. In addition to publishing six to nine reports a year the Council gives short courses on both technical and non-technical aspects of geothermal energy. They will be glad to send you reprints of articles on various topics and put you in touch with an expert if your question cannot be answered from their resources.

P.O. Box 1033
Davis, Cal. 95616
(916) 758-2360

Another group working with wind energy, HELION plans to manufacture a wide variety of wind machines and is conducting research, development and education toward that end. Various publications, slide presentations, and a book entitled Simplified Wind Power Systems for Experimenters are available.

Box 4301
Sylmar, Cal. 91342
(213) 367-8291

INTERMEDIATE TECHNOLOGY is an E.F. Schumacher (Small is Beautiful)-inspired group which believes "there is a way (or, rather, a spectrum of workable "other ways") which will permit us to preserve (and restore) the environment and do without nuclear energy for the foreseeable future and cut down sharply our consumption of fossil fuels and other non-renewable resources and make it possible for a far larger percentage of our population to rediscover meaningful work and have rewarding lives than is now the case." IT will provide information on who's doing what in the Bay Area to anyone interested. IT publishes a quarterly magazine, Intermediate Technology Report.

556 Santa Cruz Avenue
Menlo Park, Cal. 94025
(415) 328-1730

LIVING SYSTEMS is a multi-disciplinary group which works with building performance standards, building code questions, neighborhood planning and energy efficiency. Members are now at work on a solar-heated office building, solar houses, and a suggested revision of building codes for Sacramento and Indio.

Route 1
Box 170
Winters, Cal. 95694
(916) 753-3033

ERDA recently selected MCDONNELL DOUGLAS ASTRONAUTICS COMPANY as one of three contractors to test the feasibility of the "solar tower" concept for commercial use in solar power plants. The concept would use mirrors (acres of them) to reflect light onto a tall tower where water in a boiler would be converted to superheated steam using the concentrated solar rays. MDAC sees Nevada, New Mexico, Arizona, southern California, western Texas and southern Colorado as the most practical areas for this system, due to cheap land and high levels of sunlight.

5301 Bolsa Avenue
Huntington Beach, Cal. 92647
(714) 896-3311

One profit-making environmental company which may be of special interest to naturalists and interpreters is a mail order house called THE NATURE COMPANY. A wide variety of books and paraphernalia is listed in the catalog, including energy-related books and equipment. A free catalog is available on request.

1999 El Dorado
Berkeley, Cal. 94707
(415) 524-6336

OCCIDENTAL PETROLEUM CORPORATION signed a contract in 1974 with San Diego County and the U.S. Environmental Protection Agency to build a demonstration pyrolysis plant to recover energy (a liquid fuel suitable for use in utility boilers), ferrous metals, and glass from municipal solid waste. The plant is the first on a commercial scale to use the pyrolysis process and will have the capacity to handle 200 tons of waste per day. The San Diego Gas and Electric Co. will purchase the fuel.

10889 Wilshire Boulevard
Los Angeles, Cal. 90024
(213) 477-0066

California governor Jerry Brown recently established a state OFFICE OF APPROPRIATE TECHNOLOGY, which is working to promote appropriate technology for the public and for state government. The office considers questions of job development, resource conservation, community development and environmental protection as part of its mandate. A small but hard-working staff is seeking to form a larger network of volunteers and will be starting seminars, workshops,training projects in solar technologies, energy conservation programs for residential application, and examining alternatives for rural waste management.

P.O. Box 1677
Sacramento, Cal. 95808
(916) 445-1803

With domestic supplies of low-sulfur oil and natural gas declining, PACIFIC GAS AND ELECTRIC CO. has embarked upon a wide-ranging program promoting energy conservation, while continuing to develop other sources of energy. PG&E indicates that nuclear power and imported natural gas from the Artic may be the biggest help in providing energy for its customers, but also supports a number of experiments designed to utilize the sun, wind and solid wastes (both urban

and agricultural) as additional sources of energy. PG&E is the only electric utility in the U.S. which produces some of its electricity (900,000 kilowatt capacity by 1979) from geothermal steam.

Public Education Coordinator
77 Beale Street
San Francisco, Cal. 94106
(415) 781-4211

One of the best-known sources of information about tools, new styles of living, books and things in general is the Whole Earth Catalogue, originally published by THE PORTOLA INSTITUTE. Since the WEC days, Portola has continued to work to encourage this kind of learning and has given special emphasis to energy topics. Several publications are available, including the Energy Primer, a comprehensive book about renewable forms of energy, and a magazine -- CoEvolution Quarterly.

558 Santa Cruz Avenue
Menlo Park, Cal. 94025
(415) 323-5155

After a year of work on the nuclear initiative in California, PROJECT SURVIVAL is considering several alternatives for future work. The group is dedicated to education and conservation and acts as a clearinghouse for information on energy alternatives. Those who join will receive a newsletter and have access to the library.

366 California Avenue
Palo Alto, Cal. 94306
(415) 329-0450

Thermionic conversion is a way of producing electricity by evaporating electrons from a hot metal surface. RASOR ASSOCIATES, INC., a small research and development organization, is interested in using this technique for creating electric power efficiently and in large amounts. Still experimental, the device has drawn an ERDA contract for the design of a 10-kw unit in 1976. Design of a full-scale plant may come in 1977.

420 Persian Drive
Sunnyvale, Cal. 94086
(408) 734-1622

The RENEWABLE AND DECENTRALIZED ENERGY AND RESOURCES GROUP utilizes waste resources (egg cartons, used copper pipe, aluminum cans) to fabricate solar collectors. Some of these are now available for from $1 to $5 per foot, with kits and licensed plans to be available soon. The group does consulting, with varying rates, according to income. Membership includes their newsletter and discounts on products or consulting.

Route 1
Box 240 Glen Arbor Road
Ben Lomond, Cal. 95005
(408) 336-8592

SAN DIEGO GAS AND ELECTRIC COMPANY, with help from the Magma Power Company, developed the Geysers in northern California, the only U.S. commercial electricity-producing geothermal site. Now the electric utility hopes to operate the first commercial geothermal power plant fueled by heat from high-salt geothermal brines. This plant near Niland, California is expected to be in operation sometime in 1976. A second may be built near Heber, California (with Chevron as a third partner). The company believes that utilization of these "wet" geothermal brines is feasible using the "Magmamax" process developed by the Magma Power Company and that geothermal energy will be a cheaper heat source than fossil or nuclear fuels.

101 Ash Street
San Diego, Cal. 92101
(714) 239-7511

The City Council of Santa Barbara has launched an effort to reduce the city's consumption of electricity, natural gas and gasoline. THE SANTA BARBARA ENERGY CONSERVATION PROJECT has sent students to homes to conduct energy audits, convinced businesses to participate in a "Light-Out" campaign, and has used other volunteers to check auto traffic patterns and answer citizens' questions. A six-month progress report on the program is available.

105 East de la Guerra
Santa Barbara, Cal. 93101
(805) 963-7791

A new, four state (Cal., Ariz., Nev., and Hawaii) list of solar manufacturers, architects, engineers, contractors, dealers, solar consultants, non-profit associations, and national manufacturers which have distributors in the western U.S. is available from the SOUTHERN CALIFORNIA SOLAR ENERGY ASSOCIATION. Entitled the Western Regional Solar Energy Directory and sponsored by FEA, ERDA and EPA, its cost is $2.00 for non-members, or $1.00 to members (both also need 35¢ for shipping and handling). SCSEA, an educational non-profit organization, holds monthly meetings in various areas in Southern California, has a speaker's bureau and a solar library, and participates in a Solar Testing Program with Northrop University, local utilities, and various city governments. Also publishes a quarterly newsletter Solar Scope.

City Administration Building
202 "C" Street
San Diego, Cal. 92101
or
5520 Arbor Vitae
Los Angeles, Cal. 90045
(714) 236-0432

SPECTROLAB, a subsidiary of Hughes Aircraft Co., is engaged in research, development and the manufacture of silicon photovoltaic arrays that convert solar radiation directly into electrical energy for powering communication systems and navigation platforms. Spectrolab has provided most of the solar cell arrays used on U.S. satellites and spacecraft and its equipment is currently in use in many remote

countries for products such as electrification of the home, pumping water, lighting, refrigeration and two-way radios.

Marketing Services Administrator
12500 Gladstone Avenue
Sylmar, Cal. 91342
(213) 365-4611

In an effort to share information and establish a credible base for understanding and assessing wind technology developments worldwide, some 300 people have joined together to form the WIND ENERGY SOCIETY OF AMERICA. The current membership includes the nucleus of researchers, contractors and academics working in the field, but people who are just interested may join too. Members receive a newsletter. The Society is willing to provide information about itself upon request, and will try to respond to all technical inquiries.

1700 E. Walnut Street
Pasadena, Cal. 91106
(213) 796-3644

Colorado

A group working to design and construct buildings using solar energy, heat pumps, waste heat, and other new approaches is COLORADO SPRINGS PUBLIC UTILITIES. They have published Solar Energy and the Law.

18 S. Nevada
Box 1103
Colorado Springs, Colo. 80947
(303) 471-6215

COLORADO SUNWORKS designs, manufactures, and installs solar equipment for hot water, home, and swimming pool heating. Founders of the company are also teaching courses and attempting to gather other interested companies and individuals to form a Colorado solar energy association.

P.O. Box 455
Boulder, Colo. 80302
(303) 449-6563

ENVIRONMENTAL ACTION OF COLORADO is working to increase public awareness of the practical nature of solar energy, and it sponsors traveling exhibits and maintains a list of information sources called the Solar Energy Directory. The group also makes available guides to reprints of books and articles, plans for solar devices, and other useful things.

2239 East Colfax Avenue
Denver, Colo. 80206
(303) 934-7182

INTERNATIONAL SOLARTHERMICS CORPORATION publishes the monthly Solar Journal and offers a list of licensed solar furnace manufacturers, a Specifications and Performance Handbook on backyard solar furnaces, and other information.

Box 397
Nederland, Colo. 80466
(303) 258-3272

PARAHO OIL SHALE DEMONSTRATION, INC. has invented an oil-shale retort process which it claims is simple in design, highly efficient, and relatively inexpensive as well as low in air pollution production and water needs. The parent corporation, Paraho Development Corp., owns the patent rights to the process. A site near Rifle, Colo. was leased from the Interior Department in 1972 for the first plant to use the process. Paraho hopes to complete the plant in 1976.

300 Enterprise Building
Third and Main
Grand Junction, Colo. 81501
(303) 243-9550

The SAN LUIS VALLEY SOLAR ENERGY ASSOCIATION (SLVSEA), a private nonprofit corporation, is attempting to promote more understanding and development of solar and other alternate energies in order to conserve energy. SLVSEA publishes a monthly newsletter, Energy Flashes, which carries news of energy tips, developments and local efforts.

Box 748
Center, Colo. 81125
(303) 754-3795 or 589-6270

The SOLAR ENERGY APPLICATIONS LABORATORY at Colorado State University conducts research on solar energy for a variety of applications. A list of reports and studies on solar, water, air and wind electrical generation is available. CSU is offering a course in January 1977 on how to design, install and maintain solar heating, ventilating and A/C systems -- the information for which was largely derived from the Laboratory's very successful project Solar House 1 (write for brochure for more information).

Solar House 1
Colorado State University
Fort Collins, Colo. 80523
(303) 322-0446

Solar air heating and cooling systems for residential and commercial buildings are designed, manufactured, and installed by SOLARON CORPORATION. The SOLARON heating-cooling system, which the company claims is competitive with conventional equipment using fossil fuel energy or electricity, has undergone 30 years of research and 18 years of operation.

Solar Energy Systems
4850 Olive Street
Commerce City, Colo. 80022
(303) 289-5971

STEARNS-ROGER, INC. is a large engineering and construction firm specializing in power generation, mining, oil and petrochemical technology, food processing, and aerospace products. It was one of the first U.S. corporations to investigate oil shale development, and is now working in coal gasification and synthetic fuel development. A brochure is available on the company and on synthetic fuels.

P.O. Box 5888
Denver, Colo. 80217
(303) 758-1122

A solar energy exhibit, THE SUNSHINE COMPANY, will be traveling to 15 cities in Colorado through December, 1976 (with the possibility of traveling to other states), featuring hardware demonstrations, lectures, graphic panels listing solar technologies and their social, economic and environmental implications with emphasis on solar home heating, cooling and cooking, and a solar information center. Schedule available on request. Sponsored by the

University of Colorado at Denver
1100 - 14th Street
Denver, Colo. 80202
(303) 892-1117, ext. 471

Connecticut

A New England aerospace corporation, KAMAN CORP. in Connecticut, has been one of the Energy Research and Development Administration's primary contractors for the design of large-scale wind generators. The company has had major solar heating research programs at both its Bloomfield headquarters and at its Colorado Springs, Colorado office. Officials are happy to talk to people but warned they have little hardware to show at this stage.

Public Relations Department
Old Windsor Rd.
Bloomfield, Conn. 06002
(203) 242-4461

PEOPLE'S ACTION FOR CLEAN ENERGY is a non-profit citizen's group organized to fight the spread of nuclear power, to encourage the development of alternative sources of energy and to disseminate conservation information to the public. This group does a variety of community work to further its cause.

Box 563
Middletown, Conn. 06457
(no telephone)

One of the growing number of small, successful solar equipment manufacturing businesses around the country is Connecticut's SUNWORKS DIVISION OF ENTHONE, INC. The company has now produced over 800 collectors for 50 solar heating installations. Display models are often exhibited and the company welcomes inquiries.

P.O. Box 1004
New Haven, Conn. 06508
(203) 934-6301

Delaware

The DELAWARE NATURE EDUCATION SOCIETY holds workshops and conferences, lobbies on environmental issues, files opinions on environmental cases, and promotes energy conservation.

P.O. Box 700
Hockessin, Del. 19707
(302) 239-2334

A group of Delaware citizens recently formed an energy conservation advocacy organization which now has about 50 members statewide. DELAWAREANS FOR ENERGY CONSERVATION plans to work closely with the state government to begin a much-expanded savings program. The group's work has already resulted in a promise from the governor for an Energy Resources, Conservation, and Development Commission.

2303 Mousley Place
Wilmington, Del. 19810
(302) 475-1526

The INSTITUTE OF ENERGY CONVERSION at the University of Delaware is conducting research to better understand how the cadmium-sulfide solar cell (originally developed by NASA and the Air Force) works to convert solar energy directly into both electricity and heat. As part of this research the Institute has recently finished construction of a house (the only one of its kind) utilizing these cells called Solar One. SES, Inc., a profit-making spin-off, will market the results of this research. Publications available from the Institute include The Solar House and Its Portent, Solar Energy, Solar One, and Installation and Maintenance of Solar Heating Systems -- Course Notes Manual. Also offered are classes and workshops (quite technical).

c/o Kevin O'Connor
University of Delaware
Newark, Del. 19711
(302) 738-1263

District of Columbia

An offshoot of the American Institute of Architects has been formed to help architects take a more active role in decisions about energy conservation and alternative energy design in construction. THE AMERICAN INSTITUTE OF ARCHITECTS RESEARCH CORPORATION aims specifically at solar heating and cooling design and has published much of its research. A list is available.

1735 New York Ave., N.W.
Washington, D.C. 20006
(202) 785-7300

The AMERICAN PETROLEUM INSTITUTE is a trade association for the major oil companies and has a membership of both companies and indi-

viduals. Its publications, though mainly technical, give a wealth of information from the industry standpoint.

2101 "L" Street, N.W.
Washington, D.C. 20037
(202) 457-7000

A small, private lobbying organization in Washington is working to protect the nation's rivers from pollution and destruction for energy developments. The AMERICAN RIVERS CONSERVATION COUNCIL fights private and federal dam projects and has special expertise in weighing the value of these energy plants against the economic and aesthetic value of clean, natural-flowing rivers.

3117 Pennsylvania Ave., S.E.
Washington, D.C. 20020
(202) 547-6500

The ATOMIC INDUSTRIAL FORUM is an association representing nuclear power interests. Free publications relate the association's views on nuclear power.

1747 Pennsylvania Ave., N.W.
Washington, D.C. 20006
(202) 833-9234

The non-profit CENTER FOR SCIENCE IN THE PUBLIC INTEREST promotes energy conservation and alternative energy development by monitoring government energy programs and organizing citizen action. An excellent newsletter, People and Energy, publicizes the work, along with a series of reports designed to assist individual conservation efforts and action. CSPI is also a leader in educational work on food and nutrition.

1757 "S" Street, N.W.
Washington, D.C. 20009
(202) 332-4250

Practical application of low-technology, self-supporting community development concepts is encouraged by COMMUNITY TECHNOLOGY, a group devoted to neighborhood solutions to our energy problems. Their ideas and experiments range from basement fish farms and hydroponic gardens to designs of urban solar energy systems

2320 17th Street, N.W.
Washington, D.C. 20009
(202) 265-9218

The CONSERVATION FOUNDATION is a non-profit organization which conducts educational projects on environmental and energy-related issues and which has recently concluded an FEA-sponsored series of energy workshops held throughout the U.S. (ask for their resulting list of state energy contacts). The CF newsletter has good summaries of important issues.

1717 Massachusetts Ave., N.W.
Washington, D.C. 20036
(202) 797-4300

The COUNCIL ON ENVIRONMENTAL QUALITY is a federal office established to report to the President on environmental concerns. CEQ publishes an excellent yearly report, "Environmental Quality," summarizing significant developments relating to the environment.

722 Jackson Place, N.W.
Washington, D.C. 20006
(202) 382-1415

CRITICAL MASS is a national advocacy group organized by Ralph Nader to halt the use of nuclear power for electricity generation. The group lobbies, has educational programs, organizes citizen action, and has numerous reports and publications including a monthly newsletter.

133 "C" Street, S.E.
Washington, D.C. 20003
(202) 546-4790

The ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION (ERDA) is the federal government's agency with primary responsibility for research on new and traditional sources of energy. The agency's first and second annual reports and plans of action, as well as lists of other publications, are available on request. Speakers from the agency are also available in some areas.

Washington, D.C. 20545
(202) 376-4000

The ENVIRONMENTAL ACTION FOUNDATION supports a number of different research and public education projects on relevant energy issues. Topics covered include electric utility rate hikes and utility monitoring, transportation issues, and solid waste disposal. The solid waste project stresses a positive solution to solid waste problems -- producing less trash. The utility group has developed a nationwide network of utility activists and promotes public power development. Solid waste and utility projects both have newsletters.

724 Dupont Circle Building
Washington, D.C. 20036
(202) 659-9682

The ENVIRONMENTAL LAW INSTITUTE explores the legal and regulatory means by which states can promote energy conservation. ELI's Energy Conservation Project publishes a free monthly newsletter, ECP Report, as well as various reports, such as "Energy Conservation and Urban Transportation" and "Land Use and Energy Conservation." A complete list of prices and titles is available from ELI. A goal for the future is the development of model legislation for citizen groups to use in their own states.

1346 Connecticut Ave., N.W.
Washington, D.C. 20036
(202) 452-9600

The ENVIRONMENTAL POLICY CENTER is an environmental organization which specializes in lobbying on alternative energy, anti-nuclear, and strip mining control issues.

3117 Pennsylvania Ave., S.E.
Washington, D.C. 20003
(202) 547-6500

The U.S. ENVIRONMENTAL PROTECTION AGENCY is inevitably carried into energy-related programs such as impacts from resource mining, energy use and solid waste management policies. Publications and reports lists are available.

Office of Public Affairs
401 "M" Street, S.W.
Washington, D.C. 20024
(202) 755-0707

Established in May 1974, the FEDERAL ENERGY ADMINISTRATION formulates and implements policies to promote energy conservation, to improve the management of energy resources and to expand energy production. The FEA publishes a free newsletter, Energy Reporter, as well as many brochures and studies.

12th and Pennsylvania Ave., N.W.
Washington, D.C. 20461
(202) 566-7758

The INSTITUTE FOR LOCAL SELF-RELIANCE is a non-profit research organization working to counter over-centralization and unnecessarily large production systems. The Institute helps with neighborhood projects, provides information on community law, technology, and economics. Several good books have been published (write for list of prices and titles), plus a new monthly newsletter called Self-Reliance.

1717 18th Street, N.W.
Washington, D.C. 20009
(202) 232-4108

The LEAGUE OF WOMEN VOTERS, a well-known national political organization, is very active in energy and environmental issues. The League does lobbying and has developed a wide range of educational materials on these topics.

1730 "M" Street, N.W.
Washington, D.C. 20036
(202) 296-1770

The NATIONAL COAL ASSOCIATION is the trade association for the major coal companies and offers free information from the industry's perspective.

1130 17th Street, N.W.
Washington, D.C. 20036
(202) 628-4322

The NATURAL RESOURCES DEFENSE COUNCIL is a non-profit, environmental organization with extensive involvement in nuclear power and other energy issues. The group has won numerous key environmental cases. A newsletter is published quarterly.

917 15th Street, N.W.
Washington, D.C. 20005
(202) 737-5000

One arm of the Ralph Nader organization, the PUBLIC INTEREST RESEARCH GROUP, is active in lobbying against nuclear power and preparing public education materials on this and other energy and envi-

ronmental topics. The group supports alternative energy development and has published A Citizen's Handbook on Solar Energy.

2000 "P" Street, N.W.
Washington, D.C. 20036
(202) 833-97C0

RESOURCES FOR THE FUTURE, a non-profit research organization, was formed to investigate current reserves of key resources and use options for society. The group publishes the newsletter Resources summarizing this research (published three times per year -- free), as well as periodic reports.

1755 Massachusetts Ave., N.W.
Washington, D.C. 20036
(202) 462-4400

The SIERRA CLUB, well-known to many people because of its many conservation activities and its popular magazine, is a leader in energy lobbying in Washington. An emphasis in its lobbying efforts recently has been legislation for thermal efficiency standards for residential and commercial buildings. The group also promotes energy conservation, alternative energy, and protection of wilderness from questionable energy development. The group's legal staff has won a number of significant energy-related cases.

324 "C" Street, S.E.
Washington, D.C. 20003
(202) 547-1144

An independent source of information on energy issues is the non-profit WORLD WATCH INSTITUTE, founded "to identify and to focus attention on environmental problems." Particularly useful is WWI's "Energy: The Case For Conservation." Other publications discuss nuclear energy and food problems.

1776 Massachusetts Ave., N.W.
Washington, D.C. 20036
(202) 452-1999

ZERO POPULATION GROWTH is dedicated to reducing population in the U.S. and the world. The group maintains a strong lobbying force in Washington, publishes a newsletter -- the National Reporter, and works on population research for other organizations.

1346 Connecticut Ave., N.W.
Washington, D.C. 20036
(202) 785-0100

Florida

The Florida Conservation Foundation, Inc. operates the non-profit ENVIRONMENTAL INFORMATION CENTER which conducts research and distributes information on environmental issues of importance to Florida, including energy information. Extensive files are available at the Center. Publications such as the Center's I.E. ENFO Newsletter and Build Your Own Solar Water Heater are available and special confer-

ences are offered periodically. The Center is supported by public contributions and by grants for special projects.

Florida Conservation Foundation, Inc.
935 Orange Ave.
Winter Park, Fla. 32789
(305) 644-5377

In 1975 the Florida state government established a solar energy testing center and clearinghouse. In addition to testing solar equipment sold in the state, the FLORIDA SOLAR ENERGY CENTER will do some research work on ocean thermal power. A publication list is available.

300 State Road 401
Cape Canaveral, Fla. 32920
(305) 783-0300

If you are interested in ordering equipment for building alternative energy devices, the NATURAL ENERGY COMPANY has a catalogue of companies which it considers to be reliable, complete with addresses, telephone numbers, and prices. The Company also sells a variety of other energy books and pamphlets.

P.O. Box 1033
Delray Beach, Fla. 33444
(305) 272-8740

Mention solar energy and someone will inevitably mention Dr. Eric Farber, Director of the SOLAR ENERGY AND ENERGY CONVERSION LABORATORY at the University of Florida, as a leading expert in the field. Brochures, diagrams, a manufacturer's list, numerous courses and a publication list are available upon request.

Dept. of Mech. Eng., College of Eng., U. of Fla.
Gainesville, Fla. 32611
(904) 392-0812

Idaho

The IDAHO NATIONAL ENGINEERING LABORATORY is a major research lab conducting studies of the potential for geothermal electricity production. Of particular interest is a project being conducted by the lab with the Raft River Rural Electric Cooperative Association. They hope to use hot water from the earth to operate greenhouses and fish farms, process food, and produce electricity.

550 2nd Street
Idaho Falls, Idaho 83401
(208) 526-0111, ext. 1781

Illinois

The AMERICAN NUCLEAR SOCIETY is an international membership group in Illinois made up of professionals in the field of science and technology. It disseminates information about, and promotes, nuclear energy. It also provides a list of people who can speak on solar, fission, fusion and other energy forms.

244 E. Ogden Ave. 23
Hinsdale, Ill. 60521
(312) 325-1991

ERDA operates a large research facility in Argonne, Ill. which, among other things, does a great deal of research work in nuclear power. The ARGONNE CENTER FOR EDUCATIONAL AFFAIRS works in conjunction with nearby universities to direct this type of research and co-sponsored an international teach-in in 1976 on the planning and construction of nuclear power plants.

c/o Energy Research and Development Administration
9700 S. Cass Ave.
Argonne, Ill. 60439
(312) 739-7711

The DIVISION OF ENERGY of the Illinois Department of Business and Economic Development has a wealth of information on alternative energy and energy conservation. Many projects are conducted by the Division, including a renewable energy resource information file, solar research and a state solar energy development plan for Illinois, and state energy conservation-oriented programs with the specific goal of "reducing energy consumption per unit of value added."

222 South College
Springfield, Ill. 62706
(217) 782-7500

The EDWARD HINES LUMBER COMPANY is an unconventional lumber company. It offers free brochures for "do-it-yourself" insulation and solar collectors and a solar energy bibliography.

200 S. Michigan Ave.
Chicago, Ill 60604
(312) 294-2025

The ILLINOIS SOUTH PROJECT is concerned about regional coal mining and gasification and their impact on agriculture and inhabitants of the area. An information book on problems that could develop for farmers and landowners has been published.

412 S. Division
Carterville, Ill. 62918
(618) 985-6716

Energy-related newsletters, reports, documents (both state and federal), and studies are available from the ILLINOIS STATE INSTITUTE FOR ENVIRONMENTAL QUALITY's library. Books may be loaned for two weeks and other information can be read at the library.

Library
3rd Floor
309 West Washington Street
Chicago, Ill. 60606
(312) 793-3870

In an attempt to bring the Midwest closer together and more in touch with its regional resources, a group at Governor's State University has set up THE MIDWEST ENERGY ALTERNATIVE NETWORK. These folks hope to create a network of communication between individuals, organizations, schools, businesses and communities. Topics include alternative energy, conservation, appropriate technology, experi-

mental food systems and organic farming.

Governor's State University
Park Forest South, Ill. 60466
(312) 534-5000, ext. 2316-2455

HAWKWEED GROUP, LTD. is a group of architects and planners dedicated to energy conservation and alternative energy development. They promote "do-it-yourself" work and have written illustrated booklets to help the novice design home solar collectors. They also give workshops on solar energy, retrofitting, energy conservation practices and planning.

4643 North Clark Street
Chicago, Ill. 60640
(312) 784-5025

SHEAFFER AND ROLAND INC. offers consulting services to architects and engineers who are interested in integrating energy conservation into their planning and construction. The firm focuses most of its efforts on solar energy development and design but one recent project is a test site in Milford, Ill., where wastes are used to generate methane gas.

20 N. Wacker Drive
Chicago, Ill. 60606
(312) 236-9106

A small but inspired group in Chicago has set up a workshop called SHELTER LAB ONE using the members' spare time. Devoted to the idea of developing an "ecologically viable shelter" they are now involved in three projects -- a hydroponics and aquaculture experiment, the construction of a fiberglass geodesic dome used to study heat transmission and use, and an architectural study of energy used in the construction and running of the standard American home.

7347 South Paxton Street
Chicago, Ill. 60649
(312) 236-5739

The UNIVERSITY OF ILLINOIS OFFICE OF ENERGY RESEARCH coordinates energy activities on the university's campuses. This office oversees new publications and proposals for research. Some of the best analytical study in the nation on energy consumption and policy options is being done at the University's CENTER FOR ADVANCED COMPUTATION on topics such as energy efficiency of various forms of passenger and freight transport and efficiency of returnable versus throwaway beverage containers.

Office of Energy Research
331 Administration Bldg.
University of Ill. at Urbana-Champaign
Urbana, Ill. 61801
(217) 333-8861

Center for Advanced Computation
University of Ill. at Urbana-Champaign
Urbana, Ill. 61801
(217) 333-7350

Indiana

One of the best sources of information on small-scale wind energy applications is an Indiana quarterly magazine, WIND POWER DIGEST. First published two years ago, the publication promotes wind power and provides information on people and equipment.

Jester Press
54468 - CR31
Bristol, Ind. 46507
(no telephone)

Iowa

The search for clean, safe sources of energy has led to the formation of CURE - CITIZENS UNITED FOR RESPONSIBLE ENERGY by citizens from Des Moines, Iowa. These people work in the legislature against licensing of nuclear power plants, have developed a list of people interested in working together on alternative sources of energy, and are publishing a newsletter -- CURE Currents.

500 East 6th Street
Des Moines, Iowa 50309
(515) 282-8191 or 278-2283

The IOWA ENERGY POLICY COUNCIL attempts through its newsletter, Iowa Energy Bulletin, to keep state residents informed about energy issues and problems. It also includes a calendar of events and notices of new publications.

300 4th Street
Des Moines, Iowa 50309
(515) 281-3428

Kansas

A small, non-profit organization is working to promote wind energy development in the plains and across the nation. GREAT PLAINS WINDUSTRIES has 700 members including many who are willing to make speeches as well as to offer engineering expertise to fellow wind system builders. These folks are very helpful and open to queries of all kinds.

2429 A Rosebud Lane
Lawrence, Kan. 66044
(913) 842-7662

Also based in Lawrence, Kansas is the PEOPLE'S ENERGY PROJECT, a group committed to community organization to deal with specific energy issues affecting Kansas. A current project is attempting to stop a rate increase by Kansas Power & Light Company. A monthly newsletter is published.

P.O. Box 423
Lawrence, Kan. 66044
(913) 843-7592

Maine

The Maine Audubon Society recently completed a new 5500-square-foot headquarters which is heated entirely by a combined circulating air solar system and wood-burning furnace. The building also contains the society-sponsored MAINE AUDUBON ALTERNATE ENERGY NETWORK, a clearinghouse for alternative information in New England. The network publishes a bi-monthly newsletter, Maine Energy Options.

118 Old U.S. Rt. 1
Falmouth, Maine 04105
(207) 781-2330

The SOLAR WIND COMPANY, a small retail firm, offers wind speed measuring equipment, books and plans for building your own equipment, two different types of wind generators and towers, batteries and converters, and a booklet Electric Power from the Wind.

P.O. Box 7
East Holden, Maine 04429
(207) 843-5168

Another small Maine company has designed and is marketing a 15-kilowatt wind generator. ZEPHYR WIND DYNAMO is happy to explain its work to the curious and has descriptive material available about its windmill.

P.O. Box 241
Brunswick, Maine 04011
(207) 725-6534

Maryland

Rockville, Md. is the home of the U.S. branch of the INTERNATIONAL SOLAR ENERGY SOCIETY, a membership organization which promotes all forms of solar technology. Educational materials, publications, and a quarterly magazine, Journal of Solar Energy Science and Technology, are available.

12441 Parklawn Drive
Rockville, Md. 20852
(202) 443-2329

TELEDYNE ENERGY SYSTEMS (TES), of Teledyne, Inc., working with hydrogen production processes, has developed for production small heat-driven "thermoelectric" generators and "electrolysis" units for splitting water into hydrogen and oxygen. TES hopes to soon have available a unit with an efficiency of 94 percent which can be sold to utilities as a way of storing electricity for peak load needs.

110 W. Timonium Road
Timonium, Md. 21093
(301) 252-8220

One of the most active "appropriate technology" organizations in the world is based in Mt. Rainer, Md. VOLUNTEERS IN TECHNICAL ASSISTANCE (VITA) is primarily involved in supplying low-technology design, information, and help to developing countries. Their work is funded by the U.S. Government and many of the countries they serve. VITA has a wealth of resources on alternative energy topics, as well as other technologies geared to self-sufficient lifestyles, which it attempts to make available at cost to interested people in the U.S.

3706 Rhode Island Ave.
Mt. Ranier, Md. 20822
(they prefer that you write)

WESTINGHOUSE ELECTRIC CORPORATION is involved in researching the use of solar energy. With the encouragement offered by ERDA funding, Westinghouse has constructed a large-scale solar system for the heating and cooling of the George A. Towns elementary school in Atlanta, Georgia. A report from this project gives good, basic information on the principles involved. Westinghouse is also producing a heat pump which the company says functions well at low temperatures, and believes that heat pump and solar collector combinations are very promising for typical home heating and cooling needs.

Manager, Special Energy Systems
Baltimore, Md. 21203
(301) 765-1000

Massachusetts

A very active citizens' group in Massachusetts, the ALTERNATIVE ENERGY COALITION, helped form the "Clam Shell Alliance," a group of New England residents who are fighting the pending construction of a nuclear power plant (New England Power Co.) near Seabrook, New Hampshire. Energy conservation receives great emphasis as an alternative to nuclear power, along with recycling. The Coalition has sponsored workshops, supports public control of energy supplies, distributes brochures, and puts out the AEC Newsletter.

31 Federal Street
Greenfield, Mass. 01301
(413) 773-5580

An all-volunteer organization called BOSTON WIND is presently involved in the rebuilding and sale of wind-generator units, offering outside lectures on wind power, and conducting classes at the Cambridge School of Weston, September 21-October 26. The group has a quarterly newsletter, bibliography, and wind power library.

2 Mason Court
Charlestown, Mass. 02129
(617) 241-7282

ARTHUR D. LITTLE, INC. is a consulting firm which conducts research for other companies. Reports on a wide range of energy topics have been prepared. The company is also currently researching a scheme of its own, a proposal to orbit a satellite 22,500 miles above the earth to convert solar energy to electricity and beam the power back to earth by microwave transmission. According to Little officials, the SSPS (satellite solar-power station) could be covered with enough solar cells to produce 5000 megawatts of electricity on earth 24 hours a day.

Acorn Park
Cambridge, Mass. 02140
(617) 864-5770

A Boston group is developing a library of energy information and establishing a local energy information exchange. The METROPOLITAN ECOLOGY WORKSHOP is also working with wind, bioconversion, and high and medium temperature solar collector systems.

74 Joy Street
Boston, Mass. 02114
(617) 723-4699

Another corporate venture in solar experimentation is the MOBIL TYCO SOLAR ENERGY CORPORATION, a joint venture formed by Mobil Oil Corp. and Tyco Laboratories, Inc. to develop and commercialize a method for converting solar energy directly into electricity at capital costs competitive with those for conventional power generating facilities. This company has discovered a way to grow the silicon needed for solar photovoltaic cells in sheets the precise thickness and width needed, an important first step in cost reduction. A free brochure describing this effort is available.

16 Hickory Drive
Waltham, Mass. 02154
(617) 890-0909

A pioneering group in energy-saving, intensive agriculture methods and integrated systems is Massachusett's NEW ALCHEMY INSTITUTE. A famous concept developed by the Institute is a fish pond and greenhouse process to combine food production and home wastewater purification. The non-profit Institute conducts workshops every Saturday during the summer and offers a bibliography of material relating to its work.

P.O. Box 432
Woods Hole, Mass. 02543
(617) 563-2655

The Boston Architectural Center has a one-year-old energy conservation information center which has recently received funding from the National Science Foundation to expand its work. Its SERVICE FOR ENERGY CONSERVATION IN ARCHITECTURE (SECA) is a clearinghouse both for the building industry and the public.

320 Newbury Street
Boston, Mass. 02115
(617) 267-7772 or 536-3170

THERMO ELECTRON CORPORATION calculates that tapping the unused heat from industrial processes, gas turbines, diesels, and other utility power plants could yield a maximum energy saving of 973,000 barrels of oil per day. Some of this excess heat can be captured and recycled to generate electricity or to do other mechanical work.

101 First Ave.
Waltham, Mass. 02154
(617) 890-8700

The UNION OF CONCERNED SCIENTISTS formed because of its members' fears for public safety from various technologies. The UCS was the first independent group of scientists to carry out a major review of the safety of nuclear plants and prepared a comprehensive critical study of the Atomic Energy Commission's official Reactor Safety Study. The group works with the media to focus attention on nuclear issues and attempts to change the government's nuclear power policies via legal actions.

1208 Massachusetts Ave.
Cambridge, Mass. 02138
(617) 547-5552

Michigan

A group of citizens in Grand Rapids, Michigan has formed the ALLIANCE FOR CLEAN ENERGY. Its main function to date has been to organize workshops and conferences on energy alternatives. A conference held last spring was devoted to alternative energy systems and plans are now being made for one on neighborhood self-sufficiency and self-reliance.

c/o Rod Bailey
Grand Valley State College
Allendale, Mich. 49401
(616) 895-6611, ext. 173

A newsletter in Michigan called Resources focuses on removing the institutional and financial barriers to widespread introduction of solar energy. Published by the ENERGY AND ENVIRONMENT INFORMATION PROJECT at Wayne State University in Detroit, it also supplies information on energy impact, economic costs, supply and alternatives.

Wayne State University
4866 Third Street
Detroit, Mich. 48202
(no telephone)

ENVIRONMENTAL ENERGIES INC., a private company, sells wind power generating equipment. They import generators from Australia and Switzerland and do total installations themselves. A catalogue gives not only price and item lists, but also useful information about wind systems.

Box 73
Front Street
Copmish, Mich. 49625
(616) 378-2000

A student group, MICHIGAN STUDENT ENVIRONMENTAL CONFEDERATION, has begun a bi-monthly newsletter called Michigan Earth Beat. With the idea of keeping the local folks up to date on relevant issues, their newsletter covers recent legislation and proposed conservation and energy programs.

409 Seymour Ave.
Lansing, Mich. 48933
(517) 484-7421

A Michigan group called PROJECT ENTROPY organizes workshops for students in which participants devise energy conservation projects to benefit nearby schools and communities (insulation for inner city houses, windmills, school programs, etc). The group also has a public information service with bibliographies and a newsletter, and develops its own films and displays.

Center for Environmental Quality
238 Administration Building
Michigan State University
East Lansing, Mich. 48844
(517) 355-2180

The UPLAND HILLS ECOLOGICAL AWARENESS CENTER in association with the Upland Hills Farm School is trying to educate as many interested people as possible about various alternative energy systems. These people conduct a number of educational programs throughout the year which are open to the public and generally free of charge. One comprehensive energy workshop is held every summer emphasizing a hands-on approach to learning ($80 fee for fifteen days, including camping at the farm). A bulletin is published periodically to report on Center activities as well as new and interesting publications on energy-related topics.

2575 Indian Lake Road
Oxford, Mich. 48051
(313) 628-5116

The WESTERN MICHIGAN ENVIRONMENTAL COUNCIL is a lobbying group which also works with environmentalits on legal issues, and maintains a reference library with articles and reports on energy alternatives.

1324 Lake Drive SE
Grand Rapids, Mich. 49506
(616) 451-3051

Minnesota

ALTERNATIVE SOURCES OF ENERGY is one of the best sources of information in the U.S. on all forms of renewable energy. A.S.E. has a large borrow-by-mail library and several publications including a quarterly magazine Alternative Sources of Energy.

Rt. 2
Box 90A
Milaca, Minn. 56353
(612) 983-1892

The CENTER FOR STUDIES OF THE PHYSICAL ENVIRONMENT in Minneapolis puts out two newsletters covering both bio-energy and solar energy news. They include research, new publications, workshops, conferences and educational programs.

Institute of Technology
124 Space Science Center
Minneapolis, Minn. 55455
(no telephone)

An intriguing Minnesota architectural program is OUROBOROS (similar to Access in Wisconsin) which stresses the role architecture can play in energy conservation. Students do research, design and construction to retrofit old dwellings and to build new experimental ones.

School of Architecture
University of Minnesota
110 Architecture Building
Minneapolis, Minn. 55455
(612) 376-4527

A pioneer in the area of transportation conservation is the 3-M COMPANY in St. Paul, Minnesota. The company became the national leader in van-pooling in 1973 by providing 12-passenger vans to employees willing to drive eight or more employees to work. The program now includes 869 people.

3-M General Office
3-M Center
St. Paul, Minn. 55101
(612) 733-1110

Missouri

Ray of Sunlight is published by an interesting group called MESA - MISSOURI SOLAR ENERGY ASSOCIATES. The group keeps members informed of solar energy development and energy problems in the state.

2008 Engineering
University of Missouri
Columbia, Mo. 65201
(314) 882-2121

Two companies in St. Louis have been working together for the last three years to design and develop plans and facilities for solid waste recovery. In the early 1970's UNION ELECTRIC COMPANY, with the help of HORNER & SHIFRIN, built a solid waste processing test facility for recovering minerals from urban trash. Despite high costs and controversy over the process, they are going ahead now with plans for a full-scale version of the facility in the city.

Union Electric Company
One Memorial Drive
St. Louis, Mo. 63102
(314) 621-3222

Horner & Shifrin
5200 Oakland Ave.
St. Louis, Mo. 63110
(314) 531-4321

Placing new emphasis on the economic implications of environmental issues, the SCIENTISTS' INSTITUTE FOR PUBLIC INFORMATION (SIPI) is especially concerned with the question of how energy and employment are related. SIPI publishes an excellent environmental magazine, Environment, which specializes in moderately technical and in-depth articles.

560 Trinity Ave.
St. Louis, Mo. 63130
(314) 863-6560

Montana

The ALTERNATIVE ENERGY RESOURCES ORGANIZATION (AERO) is a group which follows alternative energy activities nationwide but especially in the West. It promotes wind and solar energy. Members receive a monthly newsletter, Sun Times, plus access to library information. AERO offers workshops in which you can learn about and build renewable energy devices, and sponsors the New Western Energy Show, a major traveling exhibit.

435 Stapleton Building
Billings, Mont. 59101
(406) 259-1958

The northern plains area of our country will sustain one of the major impacts of the energy crisis as the coal resources of the area are developed. An organization has been formed to monitor this issue and try to make the people of the area part of the decision-making process. The NORTHERN PLAINS RESOURCE COUNCIL represents ranchers and other citizens of Montana, Wyoming, and North Dakota who are committed to preserving an agricultural economy as the economic base of the area and to maintaining social stability and the usefulness of the land. The group encourages the use of renewable energy resources, focuses on the question of the area's scarce water supply, and generally works for protection of resources. Members receive a copy of the monthly publication, The Plains Truth.

419 Stapleton Building
Billings, Mont. 59101
(406) 248-1154

THE NORTHERN ROCKIES ACTION GROUP is set up to work with citizens on regional environmental issues. Its services range from help in fiscal management and fund-raising to organization skills. It serves the three-state area of Wyoming, Montana, and Idaho.

9 Placer Street
Helena, Mont. 59601
(406) 442-6696

Nebraska

The CENTER FOR RURAL AFFAIRS is an organization that attempts to supply Nebraskans with information on a variety of issues (land reform, alternative energy, agriculture). It publishes a newsletter called New Land Review and also sponsors the LOW-ENERGY AGRICULTURE PROJECT, a clearinghouse for alternatives in agriculture.

Center for Rural Affairs
P.O. Box 405
Walthill, Neb. 68067
(402) 846-5428

Low-Energy Agriculture Project
606 So. 40th Street
Omaha, Neb. 68105
(402) 341-1577

The Nebraska-based MIDWEST ENERGY ALTERNATIVES COALITION was formed to promote energy alternatives for homes, industries and places of business, especially in urban settings. They have taken on a clearinghouse function to supply, publish, and get people together in their four-state area (Nebraska, Kansas, Iowa, and Missouri).

P.O. Box 83202
Lincoln, Neb. 68501
(402) 477-3101

New Hampshire

The ENERGY SERVICE CENTER is involved with energy conservation studies and solar heating system designs for new and existing buildings. They periodically offer workshops on energy conservation and solar design for residential and commercial applications.

P.O. Box 344
Newmarket, N.H. 03857
(603) 659-5774/2804

Workshops are being conducted in New England by experienced people on solar and wind energy, integrated energy systems, architecture and building systems engineering, etc. and are sponsored by TOTAL ENVIRONMENTAL ACTION, INC. This group is working on most phases of alternative energy source development and has published a number of publications that stress solar/wind energy in building design. Available is a full publications list and information on slide kits, workshops, and reprints.

12 Church Hill
Harrisville, N.H. 03450
(603) 827-3374

WHEELABRATOR-FRYE, INC., a large engineering and construction firm and producer of pollution control equipment, has recently undertaken extensive research and development of solid waste energy

recovery system. The company has installed a test municipal plant in Saugus, Mass., a town of 500,000 people. According to Wheelabrator, this process produces negligible amounts of pollution and 350,000 pounds of steam an hour and processes 800 tons of garbage daily from 12 communities.

Liberty Lane
Hampton, N.H. 03842
(603) 926-5911

New Jersey

A group emphasizing energy conservation as an alternative to nuclear power is the CITIZENS ENERGY COUNCIL, which also advocates development of energy from renewable resources rather than more development of fossil fuels and nuclear power. Serving about 2000 members, the Council provides speakers, conducts briefings for elected officials, holds energy seminars and is involved in political education. A monthly newsletter is also published.

Box 285
Allendale, N.J. 07401
(201) 327-3914

CONTINENTAL CAN COMPANY, INC., using commercially available equipment, has designed a process which shreds untreated municipal waste, separates metals and uncombustibles, bales the combustible portion and distills a supplemental boiler fuel which has about one-half the heating value of an equivalent amount of coal. The company claims the process is free of air and water pollution, and that it is cheaper than pyrolysis or bioconversion systems.

411 Hackensack
Hackensack, N.J. 07601
(201) 342-3760

EXXON RESEARCH AND ENGINEERING COMPANY, a subsidiary of the world's largest corporation, conducts most of the energy conglomerate's research on new and traditional methods to harness energy, including programs for solar cells, nuclear fusion, coal gasification and liquifaction, and fuel cells. It has a speakers bureau.

Public Relations
P.O. Box 639
Linden, N.J. 07036
(201) 474-0100

A small, privately-owned corporation called FUSION ENERGY CORPORATION is working on the "migma" approach to nuclear fusion. The company hopes to be able to demonstrate its alternative by 1982, about the same time the government hopes to reach milestones with the two standard approaches to nuclear fusion, the magnetic containment and laser methods. Company officials say it may be possible for migma machines to use non-radioactive fuels, giving it environmental advantages over other fusion concepts.

P.O. Box 2005
Princeton, N.J. 08540
(609) 452-9595

RCA LABORATORIES in Princeton, N.J., a subsidiary of the RCA conglomerate, was one of the first organizations in the world to research and perfect solar cells for photovoltaic electricity production. The program began in 1953 and since that time the company has built many solar panels for the U.S. space program. It is currently one of the major federal Energy Research and Development Administration contractors working to reduce the cost of solar cell production and make the technology practical for widespread use. Inquiries are welcome.

Scientific Information Services
Princeton, N.J. 08540
(609) 452-2700, ext. 2532

New Mexico

THE SOLAR COLLECTOR TEST FACILITY at the New Mexico State University has two test buildings now operating on solar energy -- an office and laboratory building, and a residence hall. Part of the Facility's responsibility is to test and rate the efficiencies of various solar collectors for heating and cooling companies interested in manufacturing and marketing these collectors.

Instrumentation Division
Physical Science Laboratory
Box 3548
New Mexico State University
Las Cruces, N.M. 88003
(505) 524-2851

A small group specializing in low-cost greenhouse design and construction is the SOLAR SUSTENANCE PROJECT. Through workshops and a new book on the subject, the group is teaching people in New Mexico and adjacent states to build, operate and maintain greenhouses for food production.

Rt. 1
Box 107AA
Santa Fe, N.M. 87501
(no telephone)

The SOUTHWEST RESEARCH AND INFORMATION CENTER attempts to address the needs of the area by researching and litigating regional environmental issues (uranium mining, nuclear power plants, etc). The group maintains a library on relevant issues. It also publishes the Workbook, a monthly newsletter of people and resources.

P.O. Box 4524
Albuquerque, N.M. 87106
(505) 265-0461

ZOMEWORKS is a place where active and resourceful people are at work on design, drafting, consulting, fabrication, research and development in solar energy and structural systems, with emphasis on passive solar design. You may write for a list of their publications, which include plans for devices as well as other things.

P.O. Box 712
Albuquerque, N.M. 87103
(505) 242-5354

New York

To serve the three-state area of New York, New Jersey and Connecticut, the CENTER FOR ENERGY POLICY AND RESEARCH, under a grant from ERDA, has established an Energy Hot Line and an Energy Information Clearinghouse, both for the use of citizens as well as public and private energy agencies. A large number of free brochures and pamphlets are available on a wide range of energy topics.

New York Institute of Technology
Old Westbury, N.Y. 11568
(516) 686-7578

The COMMUNITY ENERGY NETWORK believes that environmental integrity is central to any approach to energy questions. Thus, though CEN offers a wide range of assistance to its community's energy problems, it emphacizes energy conservation and alternative energy technologies when giving advice and information to householders.

122 Anabel Taylor Hall
Ithaca, N.Y. 14853
(607) 256-6486 or 273-9012

New York City's ENVIRONMENTAL ACTION COALITION is a citizens' group involved in a wide range of environmental topics including energy use. A variety of information can be obtained from the group's library and special materials for teachers have been prepared. A children's newsletter, Eco-News, is produced.

156 Fifth Avenue, Suite 1130
New York, N.Y. 10010
(212) 929-8481

INFORM is a non-profit research organization which conducts studies on energy and environmental problems, among other topics. One recent study, published by the group in a book called Energy Futures, examines the involvement by the U.S. private sector in alternative energy development. Another fine book, A Clear View, is a citizen's guide to conducting research on corporate environmental practices.

25 Broad Street
New York, N.Y. 10004
(212) 425-3550

One of the best sources of news on alternative energy development is SOLAR AGE, a monthly magazine produced by Solarvision Inc. Clearly-written technical information and stories about owner-built homes and equipment predominate. A subscription is expensive ($20 per year) so you might want to order a sample copy for $2.50 before taking the plunge.

Box 2245
Grand Central Station
New York, N.Y. 10017
(212) 873-1153

North Carolina

The old standby of the alternative energy, self-sufficiency network, MOTHER EARTH NEWS, is more than ever involved in a wide range of exciting work. The success of the organization's magazine and books supports an extensive research operation. A full list of the group's publications and services is available.

P.O. Box 70
Hendersonville, N.C. 28739
(704) 692-4256

Ohio

The BABCOCK & WILCOX COMPANY has designed and marketed steam boilers which can use solid wastes for fuel. These are being tested in two municipal waste-to-energy operations in Hamilton, Ont. and Nashville, Tenn. Address listed is corporate R&D labs.

1562 Beeson
Alliance, Ohio 44601
(216) 821-9118

A group of people in Ohio believes that energy conservation measures haven't received the proper attention from electric utilities and has formed the COALITION OF CONCERNED UTILITY USERS. Since January 1975 the group has worked to encourage conservation and halt what members believe are excessive utility rate increases. CCUU is active in such utility rate cases, studies utility regulation, and lobbies and monitors legislation, as well as arranging meetings and events. CCUU also publishes a newsletter, The Rate Fighters, to keep its members informed.

P.O. Box 10006
Columbus, Ohio 43201
(614) 294-6378

NASA's LEWIS RESEARCH CENTER is involved in a number of research programs to develop efficient energy systems for the future. These include wind and solar energy research, energy conversion systems for coal, and new ground transportation. Reports and information are available from the Technology Application Center, University of New Mexico, Albuquerque, N.M. 87106.

21000 Brookpark Rd.
Cleveland, Ohio 44135
(216) 433-4000, ext. 6832

One alternative to conventional automobile engines, the Stirling engine, is getting a boost from a small company in the hills of Ohio, SUN POWER, INC. The company has designed and developed a prototype model and is working with several companies to manufacture the engine. The research and development oriented Sun Power organization

also designs heating systems, including some passive heating design.

48 West Union Street
Athens, Ohio 45701
(614) 593-8878

TRW, INC. recently conducted a one-year, government-sponsored research program on the potential of using the thermal gradient of the ocean for large-scale electricity production. The company designed a generator using ammonia to absorb the energy from warm seawater, driving the turbines (as the ammonia vaporizes it expands, spinning the turbines and producing 100 Mw of power), while pumps draw cold water up a 4000-foot pipe to condense the ammonia for recycling. The company hopes to receive a second contract to design and build the 100 megawatt demonstration plant being considered by ERDA.

23555 Euclid Ave.
Cleveland, Ohio 44117
(216) 383-2121

Oklahoma

A first in its state, the OKLAHOMA ENVIRONMENTAL INFORMATION AND MEDIA CENTER collects energy, environment, and ecology information for dissemination upon request. The group is open to all kinds of requests and questions and has extensive microfiche files as well as publications. It also publishes a newsletter called Eco-Systems.

East Central Oklahoma State University
Ada, Ok. 74820
(405) 332-3088

Oregon

Fifteen people with construction skills of various types who will work to cover their wages but do not charge a profit on materials are known as the BUILDERS' CO-OP. Principally serving the Eugene area, they do repair and remodelling and are willing to work with owner-builders and on low-cost structures. They have completed the conversion of one house to alternative energy systems and are willing to try others.

3328 Elmira Road
Eugene, Ore. 97402
(503) 688-7096

A difficult experiment to describe in only a few sentences, CERRO GORDO is a very carefully planned large cooperative community (still being built) which tries to design with nature. Construction has started on the first group of homes, for current contributors to the experiment. Homesteading will follow, with the final step being homes available for rent from a partnership of Cerro Gordo owners and residents. The Town Forum is a quarterly publication which de-

scribes this and other experiments and is the name of the non-profit educational and scientific organization which developed the original concept for Cerro Gordo. Also available is a free brochure describing the project.

P.O. Box 569
Cottage Grove, Ore. 97424
(503) 942-7720

An energy education organization called ENERGY AND MAN'S ENVIRONMENT sponsors statewide teachers' conferences on energy and environment issues and curriculum. The group is also doing a lot of its own research and encourages the exchange of information among educators, public leaders, environmentalists, and industry representatives. Free to those teachers who live in Oregon, Washington, No. Carolina, Idaho and Utah is the K-12 Activity Guide ($3 otherwise). Also available is the 1975 Classroom Energy Calendar.

0224 S.W. Hamilton
Portland, Ore. 97201
(503) 226-7131

The ENERGY CONSERVATION ORGANIZATION maintains a library on energy conservation. It is a membership group oriented to Oregon issues.

1059 Hilyard Street
Eugene, Ore. 97401
(503) 344-1308

A regional energy study for Washington, Oregon, and Idaho is now being conducted by the NORTHWEST ENERGY POLICY PROJECT. Initiated over two years ago, the states' legislatures, along with their governors, are working with the Northwest Region Commission to complete this $1 million study by the end of 1977. Energy conservation materials are available in the library for reference.

1096 Lloyd Bldg.
700 N.E. Multnomah Street
Portland, Ore. 97232
(503) 234-9666

The State of Oregon has a comprehensive land use planning statute, and 1000 FRIENDS OF OREGON is an organization working to achieve enforcement of that law. The group works with communities to explain the law and to help achieve compliance, gives talks, meets with agencies, and files lawsuits if necessary. A newsletter is published.

3709 S.E. Belmont
Portland, Ore. 97214
(503) 233-5408

A good place to locate information, see exhibits and find educational activities is the Energy Center of the OREGON MUSEUM OF SCIENCE AND INDUSTRY. Experts there work with adults and school groups.

4015 S.W. Canyon Road
Portland, Ore. 97221
(they prefer that you write)

The PORTLAND ENERGY CONSERVATION PROJECT has been established through the joint efforts of the Department of Housing and Urban Development and the City of Portland to describe where and how Portlanders are now using energy, to determine what changes should be planned for, and to search for solutions which will help solve the problems that will arise from increased energy costs. To be completed by July 1, 1977, the Project will provide an energy budget for Portland.

Portland Bureau of Planning
424 S.W. Main Street
Portland, Ore. 97204
(503) 248-4293

The fertile Northwest has given rise to a number of flourishing energy groups, and perhaps the best way to learn about them is to get in touch with RAIN, an information access and referral center for many people and organizations. Ten times each year the publication Rain appears, giving information resources plus interesting comments and ideas. Subscriptions are $10 per year. RAIN (the group) is in touch with many others and Rain (the publication) will put you in touch.

2270 N.W. Irving
Portland, Ore. 97210
(503) 227-5110

An academic center for solar energy seminars, the SOLAR ENERGY CENTER at the University of Oregon also conducts research on solar heating in the Pacific Northwest at the Coos Bay Solar Home. Available from the Center is Solar Energy for Pacific Northwest Buildings and The Impact of Solar Energy on Architecture.

c/o John Reynolds, Architect
University of Oregon
Eugene, Ore. 97403
(503) 686-5128

Pennsylvania

In order to conduct effective legal battles against nuclear power, about 30 Pennsylvania citizen action groups have united to from the ENVIRONMENTAL COALITION ON NUCLEAR POWER. ECNP publishes a newsletter and provides speakers.

A400 Benson East
Jenkintown, Pa. 19046
(215) 884-6262

With financial assistance from ERDA, NSF, and military contracts, the GENERAL ELECTRIC COMPANY SOLARQUIP division conducts most of this large corporation's research and development of solar cells and solar heating and cooling equipment. The division designed a solar heating system for the Grover Cleveland Junior High School in Dorchester, Mass., built its own test facility at the Valley Forge Space Center, and is installing a solar heating system in Somerset County

Park Commission's Environmental Education Center near Somerville, N.J.

Solar Product Sales/Solarquip Marketing
Room #7306
P.O. Box 8661
Philadelphia, Pa. 19101
(215) 962-2000

The KOPPERS COMPANY, INC. has the sole U.S. license for a system to produce medium- and high-Btu coal which it claims is pollution free. Called the Koppers-Totzek process, it was originally developed by the Heinrich Koppers Company in Germany. In addition to its work with the K-T process, Koppers conducts research in other methods for gasification.

Koppers Building
Pittsburgh, Pa. 15219
(415) 391-3300

In an effort to reduce peaks in demand, the PENNSYLVANIA POWER AND LIGHT COMPANY has decided to promote solar heating, along with the use of heat pumps (its first priority). The company is experimenting with effective ways of using "free" energies such as waste heat and sunshine, and has built a demonstration house in Schnecksville near Allentown. The information received from this project is shared with local builders and developers. The utility also plans to build other structures using solar energy.

901 Hamilton Street
Allentown, Pa. 18101
(215) 821-5151

A small and very unusual energy company is working in York, Pa., to perfect designs for ocean thermal power plants, which harness the difference in temperature between surface and deep ocean waters to produce electricity. SEA SOLAR POWER INC. has been working on the concept for over 10 years now and is testing a small-scale operating model. A separate company at the same address is pursuing geothermal work.

2422 S. Queen St.
York, Pa. 17402
(717) 741-0884

The SOCIETY FOR ENERGY ALTERNATIVES IN THE URBAN/RURAL ENVIRONMENT (SEAURE, inc.) is a resource center for people who want to retrofit houses and initiate other practical adaptations. The group is now retrofitting a rowhouse in West Philadelphia (winterizing and installing a solar system), but also prepares educational demonstrations for fairs and meetings, refers people to experts, and allows the use of its library. An on-going program of weekly meetings is open to interested people.

335 Saunders Avenue
Philadelphia, Pa. 19104
(215) 349-7042 or (215) 948-1468

Rhode Island

A mainstay of the New England alternative energy community recently closed its non-profit institute and became a profit-making corporation. Formerly Research and Design Institute (REDE), the organization is now REDE CORP. and is continuing much of the same innovative work. Inadequate funding for the institute forced the change and a sad loss in the process was the old, brick mill building REDE had converted into a solar heating and wind power demonstration facility. The company is now working under contract and selling the only Darrieus wind generator on the market.

Box 212
Providence, R.I. 02901
(401) 751-7333

Tennessee

Giving citizens an opportunity to learn more about energy and environmental needs and problems, the CITIZENS' WORKSHOPS ON ENERGY AND ENVIRONMENT coordinates educational programs for ERDA. The workshops consist of a slide orientation, a decision-making game using the Energy-Environment Simulator (developed by ERDA), and a feedback session.

Oak Ridge Associated Universities
P.O. Box 117
Oak Ridge, Tenn. 37830
(615) 483-8411, ext. 311

ETEG -- the EAST TENNESSEE ENERGY GROUP -- is an organization which deals with issues concerning energy consumers and environment. Its main concerns are electric rates and informing the public about the "dangers of nuclear energy." ETEG is attempting to convince TVA to revise its rate structures and to prevent the construction of the Phipps Bend Nuclear Plant.

1538 Highland
Knoxville, Tenn. 37916
(no telephone)

The EAST TENNESSEE RESEARCH CORPORATION studies the environmental impacts of energy policies and promotes ways to reduce the impacts by revising utility rate structures and getting more citizen input into these structures. Reports and studies are available either free or at cost.

P.O. Box 436
Jacksboro, Tenn. 37757
(615) 562-3396

In Nashville, the TENNESSEE ENVIRONMENTAL COUNCIL has taken a special interest in energy conservation education for the public. TEC organizes conferences and meetings across the state to inform

citizens of pertinent issues and is currently planning specific public energy education programs.

P.O. Box 1422
Nashville, Tenn. 37202
(615) 251-1110

The TENNESSEE VALLEY AUTHORITY plans to publish an energy education book this fall as a guide to resources for energy, electrical generation, and energy cycles (plants - animals - people). TVA also has a Resource Materials Center which is available to anyone who can get there to use it (can't take out these materials).

Environmental Education Section
Forestry Building
Norris, Tenn. 37828
(615) 632-4411

In Tennessee, a university-sponsored energy information clearinghouse has also become an important link to increase communication between government, businesses, citizen groups, and university research programs. The UNIVERSITY OF TENNESSEE ENVIRONMENT CENTER has a library and a number of its own publications. The center also does research and is now completing three homes to test various alternative energy technologies.

South Stadium Hall
Knoxville, Tenn. 37916
(615) 974-4251

Texas

The ENERGY INFORMATION SERVICE at the University of Texas will provide assistance to anyone who needs specific energy questions answered, via telephone, mail or in person. The Service includes a library of energy source material and publications, a quarterly list of new books and documents available on campus, a bibliography on selected energy topics, and a directory of individuals and organizations specializing in energy-related areas.

University of Texas
Center for Energy Studies
Austin, Tx. 78712
(512) 471-7792

An inspired couple in Texas has founded MAX-POT, THE CENTER FOR MAXIMUM BUILDING POTENTIALS, to study regional questions of energy and shelter. They focus on energy and living systems to be used on a small scale and requiring little expertise to build. Their workshops help students solve energy problems through model system building as well as full-scale construction. Various publications and maps of Texas energy resources may be purchased.

6438 Bee Cave Rd.
Austin, Tx. 78712
(they prefer that you write)

One of the large corporations conducting research for the government on solar energy is the Materials Technology Lab of TEXAS INSTRUMENTS INC. The company is working under an Energy Research and Development Administration contract to produce less costly solar cells. Other government contracts support solar heating and cooling research and design.

Mail Station 960
P.O. Box 5012
Dallas, Tx. 75222
(214) 238-2341

Vermont

Energy accounting in commercial agriculture is the specialty of the CENTER FOR STUDIES AND FOOD SELF-SUFFICIENCY in Vermont. Less energy-intense methods for producing food are studied and numerous reports are available.

Vermont Institute of Community Involvement
90 Main St.
Burlington, Vt. 05401
(802) 862-5650

The NEW ENGLAND REGIONAL ENERGY PROJECT is a research organization formed to provide back-up technical expertise to legal service and community groups which are concerned with alternative energy sources, utility regulatory issues, winterization, retrofitting, alternate rate structures, etc. These issues are covered in the NEREP Newsletter.

P.O. Box 514
Burlington, Vt. 05401
(802) 863-3408

The NEW ENGLAND SOLAR ENERGY ASSOCIATION is a membership organization of manufacturers, builders, professionals, and consumers (14,000 members in all). Through chapter meetings, an annual conference, a solar materials bookstore, and a bi-monthly newsletter, members are kept abreast of new technology developments, new products, and legislative matters.

P.O. Box 121
Townshend, Vt. 05353
(802) 365-4084

SOL-R-TECH, INC. has designed a solar heating and cooling system involving three components -- electric heat pumps, a liquid storage tank, and rooftop collectors. The first installation achieved an overall energy savings of 65 percent over standard electric heating during a five-month period from January to May in 1975, the group says. A small, four-person operation, Sol-R-Tech thinks the high energy efficiency and environmental advantages, combined with favorable economics (about $7 per square foot for the collectors, and about $10,000 installation for the entire heating and cooling system), make the system a good commercial enterprise.

The Trade Center
Hartford, Vt. 05047
(no telephone)

VERMONT TOMORROW is developing a network of individuals and groups in that state which are working with solar technologies. The group publishes a quarterly newsletter and will soon release a Community Development Guide on Energy.

5 State Street
Montpelier, Vt. 05602
(802) 223-6067

The WOOD ENERGY INSTITUTE is a new organization set up to conduct research on wood energy potential and serve as a clearinghouse for information. Write for a list of publications.

Box One
Fiddlers Green
Waitsfield, Vt. 05673
(802) 496-2508

Virginia

The INTERTECHNOLOGY CORPORATION, a small private research firm which does studies and designs for the federal government and other clients, has built and operated a solar heating system at the Fauquier County Public High School in Warrenton as part of a National Science Foundation contract. ITC is also designing 24 systems for solar heating and cooling in commercial buildings, and 20 blueprints for solar heating in houses, schools, and other buildings. Also in the works: an overall plan for the city of Clarksburg, W. Va., to utilize local energy resources.

Box 340
Warrenton, Va. 22186
(703) 347-7900

Washington

ECOTOPE GROUP is a research and educational, non-profit organization working on appropriate technology, renewable energy (solar, wind and bio-fuels), energy conservation, and recycling. It sponsors workshops on energy conservation and solar water heater construction. The Group uses existing equipment, skills, and technologies whenever possible, applying a minimum cost criteria to all designs. Ecotope Group is available for consultation work for the design of solar energy systems and can provide building and contractor services as well. Information is available on all kinds of energy related things, but some of the more interesting are a do-it-yourself solar water heater, solar greenhouse, methane digester, and composting privies.

747 16th E.
Seattle, Wa. 98112
(206) 322-3753 or 329-0922

Completing an alternate energy directory, lobbying on energy issues, planning an environmental education center, helping to develop public alternative energy displays, and publishing a newsletter (available with membership), are all activities of ENERGY ACTION OF

WASHINGTON. This group also has a reference library and works with other action-oriented community groups in the area.

P.O. Box 4244
Seattle, Wa. 98104
(206) 372-3538

The INSTITUTE FOR ALTERNATIVE FUTURES in Mt. Vernon, Washington has completed a survey of the flora and fauna of the Skagit Basin which is being used to help define a low-energy lifestyle for the area. They have plans for construction, sponsor workshops, and are glad to help out.

2376 E. Walker Road
Mt. Vernon, Wa. 98273
(206) 422-5655

Giving citizens an opportunity to learn more about energy and environmental needs and problems, NORTHWEST COLLEGE AND UNIVERSITY ASSOCIATION FOR SCIENCE (NORCUS) coordinates educational programs for ERDA. The workshops consist of a slide orientation, a decision-making game using the Energy-Environment Simulator (developed by ERDA), and a feedback session.

100 Sprout Road
Richland, Wa. 99352
(509) 943-3176

A living-learning program is being conducted at OUTBACK. Involved are research and development, classes, workshops, construction, and communicating with others about organic gardening, windmills, solar panels, and methane production.

Fairhaven College
Bellingham, Wa. 98225
(no telephone)

For technical and economic assistance in building your own hydroelectric system, turn to the people at SMALL HYDROELECTRIC SYSTEMS AND EQUIPMENT for help. They have developed many methods for using small water power plants and will supply information and other resources free. Please include a self-addressed, stamped envelope.

P.O. Box 124
Custer, Wa. 98240
(no telephone)

Wisconsin

The University of Wisconsin's School of Architecture has set up a program called ACCESS which experiments with "resource-conserving construction and environmentally responsive shelter." Like Ouroboros at the University of Minnesota, this group delves into many different areas including rehabilitation of old homes, appropriate technology, and hydroponics.

School of Architecture
University of Wisconsin
Milwaukee, Wisc. 53201
(414) 964-4134

WINDWORKS is a collective of five people doing research, design and prototype testing of wind systems. They are known for their Gemini Synchronous Inverter which permits a home windmill owner to channel excess electricity into existing utility lines while using the power company's electricity when there's no wind. The group has three test wind generators operating. They also sell a bibliography of people, publications and manufacturers in the field.

Rt. 3
Box 329
Mukwonago, Wisc. 53149
(414) 363-4408

Wyoming

HIGH COUNTRY NEWS is an environmentally-oriented, bi-weekly newspaper which covers the region of the Rockies and northern plains, and reports on the people of the region, natural history, conservation, the rush for Western coal, solar power, agriculture, and changing land use patterns. 16 pages, 25 issues/year, $10 annual subscription rate.

Box K
Lander, Wy. 82520
(307) 332-4877

Founded in 1973 by ranchers and citizens, the POWDER RIVER BASIN RESOURCE COUNCIL's mandate is to preserve the agricultural integrity of its three county area from the threat of coal development. The Council is in the process of putting together a fact sheet on the pros and cons of coal leasing. Available now are various energy fact sheets, a monthly newsletter which comes with membership, and a slide show on the ramifications of coal development.

150 West Brundage
Sheridan, Wy. 82801
(307) 672-5809

PARK PROJECT ON ENERGY INTERPRETATION

List of Publications

ENERGY IDEAS FOR PARKS: a periodic (about once per month) newsletter for interpreters containing feature articles, an "energy transfer" section (articles or letters by interpreters on energy programs for visitors), news and a calendar of energy happenings (free).

ENERGY ACTIVITY GUIDE: a 24-page collection of colorfully illustrated articles and activities, containing information on all aspects of energy. Written for general audience and often given to visitors at park sites (free).

ENERGY MANUAL FOR PARKS: a handbook for interpreters and naturalists, containing up-to-date information on energy use in nature and by people. Provides the basic facts from which interpretive programs may be created. Also useful for general audiences ($3).

ENERGY WORKBOOK FOR PARKS: contains many ideas and illustrations for making energy principles understandable through activities. Written for interpreters, teachers, and all those working to make energy and its importance more clear (availability and price currently uncertain - undergoing review process within the Federal Energy Administration - write for copy if one is desired and request will be placed on file).

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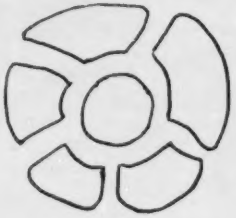

PUBLICATIONS ORDER FORM

Send to: Park Project on Energy Interpretation
National Recreation and Park Association
1601 North Kent Street
Arlington, Virginia 22209

or call: (703) 525-0606

MAKE CHECKS OR MONEY ORDERS PAYABLE TO THE NATIONAL RECREATION & PARK ASSOC.

Publication	Number	Cost (if any)
ENERGY IDEAS FOR PARKS	____	____
ENERGY ACTIVITY GUIDE	____	____
ENERGY MANUAL FOR PARKS ($3)	____	____
ENERGY WORKBOOK FOR PARKS	____	____
ENERGY - WHO'S DOING WHAT?	____	____